



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,666	07/09/2003	Juliana H. J. Brooks	BKL 113 (c)	9834
26818	7590	06/15/2006		
MARK G. MORTENSON POST OFFICE BOX 310 NORTH EAST, MD 21901-0310			EXAMINER WONG, EDNA	
			ART UNIT	PAPER NUMBER

1753

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/615,666

Applicant(s)

BROOKS ET AL.

Examiner

Edna Wong

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) 5 and 6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Election/Restrictions

Applicant's election with traverse of Group I, claims **1-4**, in the reply filed on May 18, 2006 is acknowledged. The traversal is on the ground(s) that a thorough and complete search for the invention of Groups I and II are contained in class 204, subclass 157.15. This is not found persuasive because the same search and rejection of claims 1-4 cannot be used on claims 5 and 6. Thus, the inventions of Groups I-III are independent and distinct.

The requirement is still deemed proper and is therefore made FINAL.

Accordingly, claims **5 and 6** are withdrawn from consideration as being directed to a non-elected invention.

Drawings

The drawings are objected to because there are two "Fig. 25a". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency.

Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

I. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because the abstract is more than one paragraph long and more than 150 words. Correction is required. See MPEP § 608.01(b).

II. The disclosure is objected to because of the following informalities:

page 112, line 11, there is no Figure 6.

page 113, line 26, there is no Figure 25b.

page 114, line 10, there is no Figure 30.

page 117, line 14, there is no Figure 69.

Appropriate correction is required.

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: the step of conditioning at least one conditionable participant in a fuel cell reaction system.

Claim 1

lines 3-8, the preamble recites "A method for conditioning at least one conditionable participant in a fuel cell reaction system". However, the body of the claim does not recite any conditioning of the at least one conditionable participant in the fuel cell reaction system. Thus, the body of the claim is not commensurate in scope with its preamble.

line 3, it appears that the "at least one conditionable participant" is the same as that recited in claim 1, line 1. However, it is unclear if it is. If it is, then it is suggested that the word -- said -- be inserted after the word "to".

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

I. Claims 1-4 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-26 of copending Application No. 10/203,797 (Brooks et al.). Although the conflicting claims are not identical, they are not patentably distinct from each other because the subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows:

applying at least one conditioning frequency to at least one conditionable participant to cause at least one of the formation, stimulation and stabilization of at least one conditioned participant, whereby said at least one conditioning frequency comprises at least one frequency selected from the group consisting of direct resonance conditioning frequencies, harmonic resonance conditioning frequencies and non-harmonic heterodyne conditioning resonance frequencies.

The independent claim of the instant application recites similar limitations, either alone or in combination with its dependent claims, as that of the claims of the copending application wherein the claims of the instant application are encompassed by the claims of the copending application. The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application. Therefore, the claims would have been

obvious variants over each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

II. Claims 1-4 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6 of copending Application No. 10/507,659 (Brooks et al.). Although the conflicting claims are not identical, they are not patentably distinct from each other because the subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows:

applying at least one conditioning frequency to at least one conditionable participant to cause at least one of the formation, stimulation and stabilization of at least one conditioned participant, whereby said at least one conditioning frequency comprises at least one frequency selected from the group consisting of direct resonance conditioning frequencies, harmonic resonance conditioning frequencies and non-harmonic heterodyne conditioning resonance frequencies.

The independent claim of the instant application recites similar limitations, either alone or in combination with its dependent claims, as that of the claims of the copending application wherein the claims of the instant application are encompassed by the claims

of the copending application. The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application. Therefore, the claims would have been obvious variants over each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

III. Claims 1-4 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6 of copending Application No. 10/507,660 (Brooks et al.). Although the conflicting claims are not identical, they are not patentably distinct from each other because the subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows:

applying at least one conditioning frequency to at least one conditionable participant to cause at least one of the formation, stimulation and stabilization of at least one conditioned participant, whereby said at least one conditioning frequency comprises at least one frequency selected from the group consisting of direct resonance conditioning frequencies, harmonic resonance conditioning frequencies and non-harmonic heterodyne conditioning resonance frequencies.

The independent claim of the instant application recites similar limitations, either alone or in combination with its dependent claims, as that of the claims of the copending application wherein the claims of the instant application are encompassed by the claims of the copending application. The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application. Therefore, the claims would have been obvious variants over each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

IV. Claims **1-4** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims **1-6** of copending Application No. **10/508,462** (Brooks et al.). Although the conflicting claims are not identical, they are not patentably distinct from each other because the subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows:

applying at least one conditioning frequency to at least one conditionable participant to cause at least one of the formation, stimulation and stabilization of at least one conditioned participant, whereby said at least one conditioning frequency comprises

at least one frequency selected from the group consisting of direct resonance conditioning frequencies, harmonic resonance conditioning frequencies and non-harmonic heterodyne conditioning resonance frequencies.

The independent claim of the instant application recites similar limitations, either alone or in combination with its dependent claims, as that of the claims of the copending application wherein the claims of the instant application are encompassed by the claims of the copending application. The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application. Therefore, the claims would have been obvious variants over each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

I. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by **Brooks et al.** (US Patent No. 6,033,531).

Brooks teaches a method for conditioning at least one conditionable participant (= platinum powder) in a fuel cell reaction system ($\text{H}_2 + \text{O}_2 \rightarrow \text{platinum catalyst} \rightarrow \text{H}_2\text{O}$) comprising:

applying at least one conditioning frequency (= spectral catalyst platinum emissions from two parallel Fisher Scientific Hollow Cathode Platinum Lamps) to at least one conditionable participant (= the traditional physical platinum catalyst) to cause at least one of the formation, stimulation and stabilization of at least one conditioned participant (= irradiated physical platinum catalyst), whereby said at least one conditioning frequency (= spectral catalyst platinum emissions from two parallel Fisher Scientific Hollow Cathode Platinum Lamps) comprises at least one frequency selected from the group consisting of direct resonance conditioning frequencies, harmonic resonance conditioning frequencies and non-harmonic heterodyne conditioning resonance frequencies (= *inherent*) [col. 11, Example 1; and col. 13, Example 5].

The conditioned participant (= irradiated physical platinum catalyst) resonantly transfers energy (= the harmonic on a catalyst surface gives a photon energy) with at least one participant ($\text{H}_2 + \text{O}_2$) in a fuel cell reaction system ($\text{H}_2 + \text{O}_2 \rightarrow \text{platinum catalyst} \rightarrow \text{H}_2\text{O}$) to affect at least one reaction pathway (= a rate of reaction) in said fuel cell reaction system (col. 11, Example 1; and col. 13, Example 5).

The method further comprises applying at least one spectral energy pattern to said fuel cell reaction system (= spectral catalyst platinum emissions from two parallel

Fisher Scientific Hollow Cathode Platinum Lamps) [col. 13, Example 5].

A rate of at least one reaction in said fuel cell reaction system is accelerated (= a rate of reaction is increased) [col. 13, Example 5].

Since Brooks teaches all of the limitations recited in the instant claims, the reference is deemed anticipatory.

II. Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Kawamura et al. (US Patent No. 6,706,431 B2).

Kawamura teaches a method for conditioning at least one conditionable participant (= a catalyst) in a fuel cell reaction system (= a hydrogen and oxygen fuel cell electrode system) [col. 5, lines 49-57] comprising:

applying at least one conditioning frequency (= a blue color diode light and/or a conducting electric current) to at least one conditionable participant (= a catalyst) to cause at least one of the formation, stimulation and stabilization of at least one conditioned participant (= an increased catalytic function) [col. 5, lines 39-43], whereby said at least one conditioning frequency (= a blue color diode light and/or a conducting electric current) comprises at least one frequency selected from the group consisting of direct resonance conditioning frequencies, harmonic resonance conditioning frequencies and non-harmonic heterodyne conditioning resonance frequencies (*inherent*).

The conditioned participant (= an increased catalytic function) resonantly

transfers energy (= the harmonic on a catalyst surface gives a photon energy) with at least one participant (= hydrogen and oxygen) [col. 5, lines 44-57] in a fuel cell reaction system (= a hydrogen and oxygen fuel cell electrode system) [col. 5, lines 49-57] to affect at least one reaction pathway in said fuel cell reaction system 3 (= the efficiency of the fuel cell may be increased) [col. 2, lines 57-59].

The method further comprises applying at least one spectral energy pattern (= from the blue color diode light and/or the conducting electric current) to said fuel cell reaction system.

A rate of at least one reaction in said fuel cell reaction system is accelerated (= the efficiency of the fuel cell may be increased) [col. 2, lines 57-59].

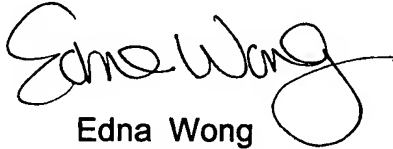
Since Kawamura teaches all of the limitations recited in the instant claims, the reference is deemed anticipatory.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edna Wong whose telephone number is (571) 272-1349. The examiner can normally be reached on Mon-Fri 7:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Edna Wong
Primary Examiner
Art Unit 1753

EW
June 2, 2006